



Stony Brook University

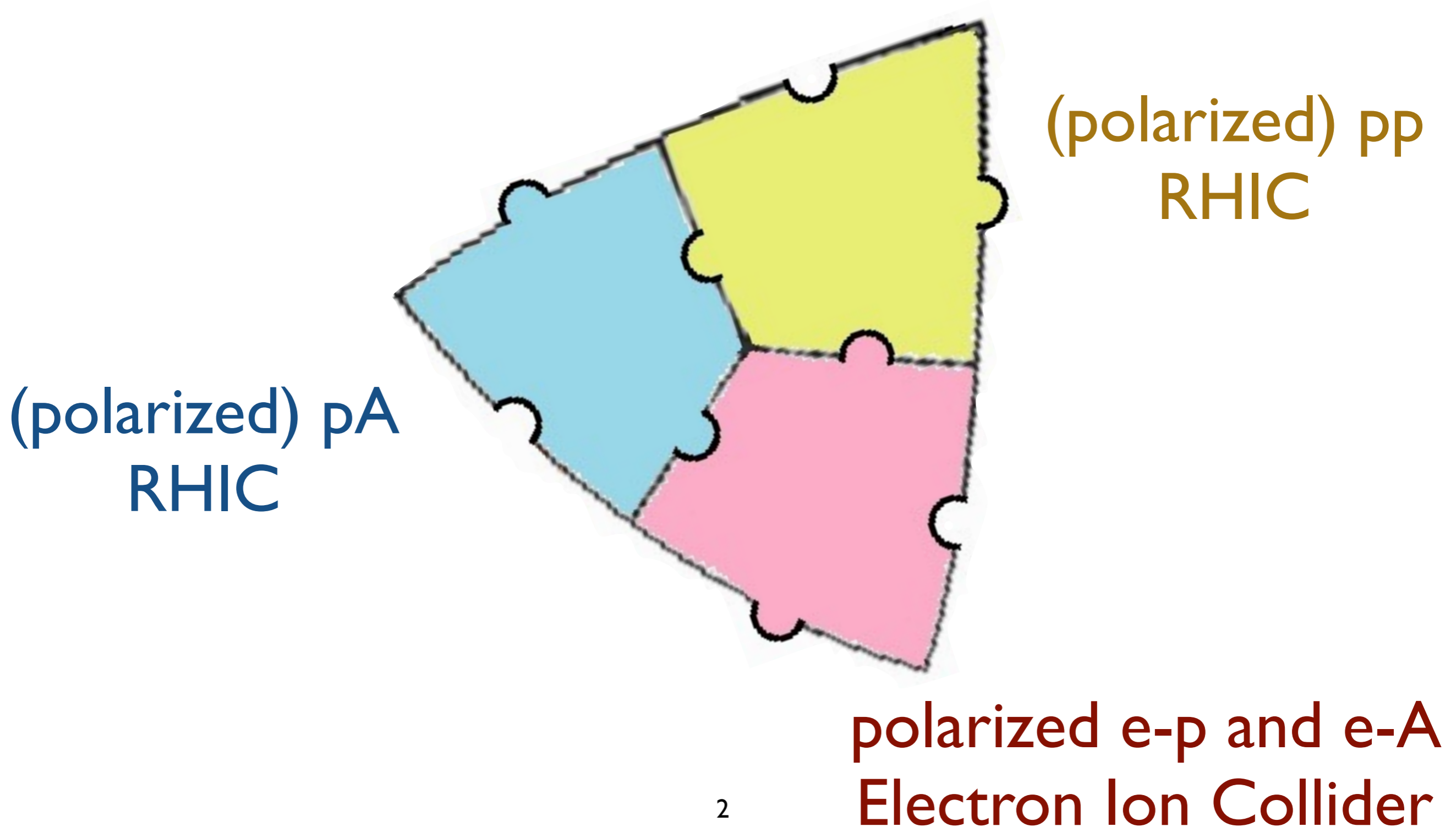
Introduction to the Cold QCD Topical Group

Christine Aidala, Nils Feege

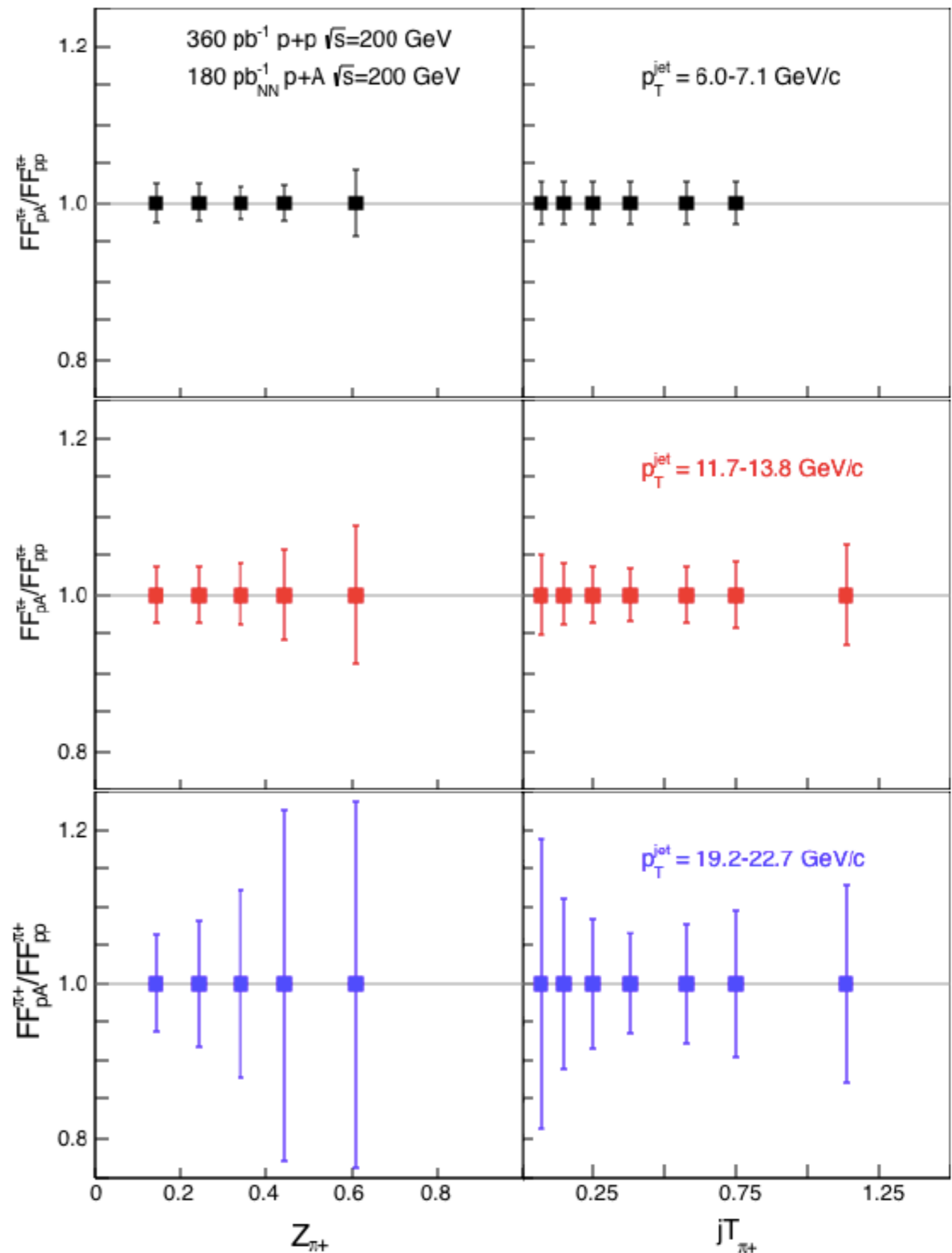
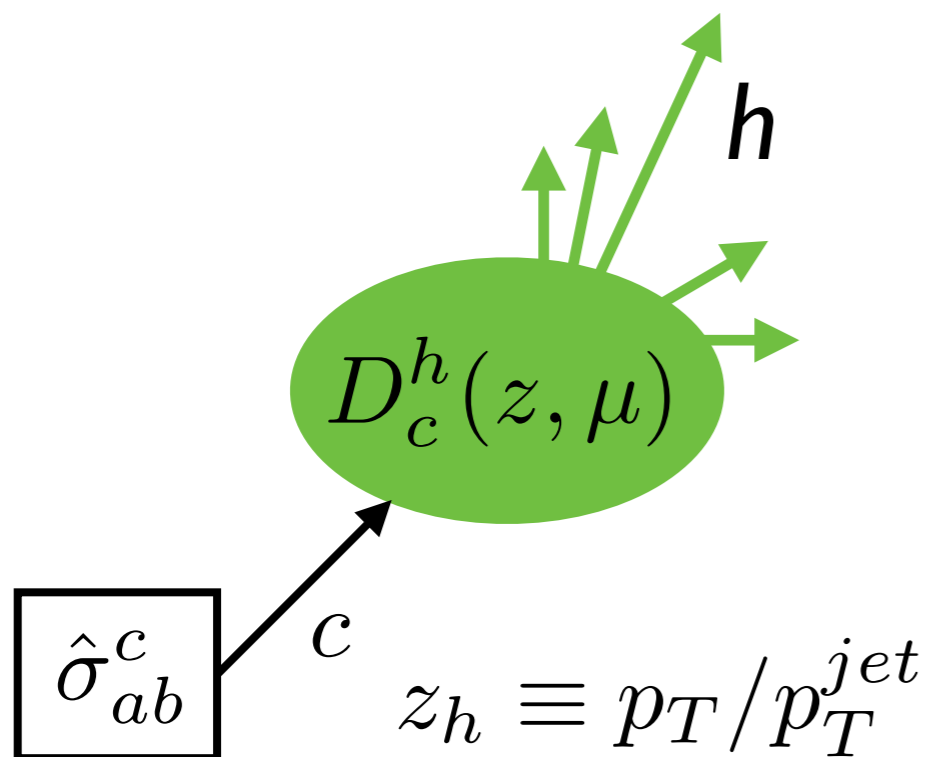
caidala@umich.edu nils.feege@stonybrook.edu

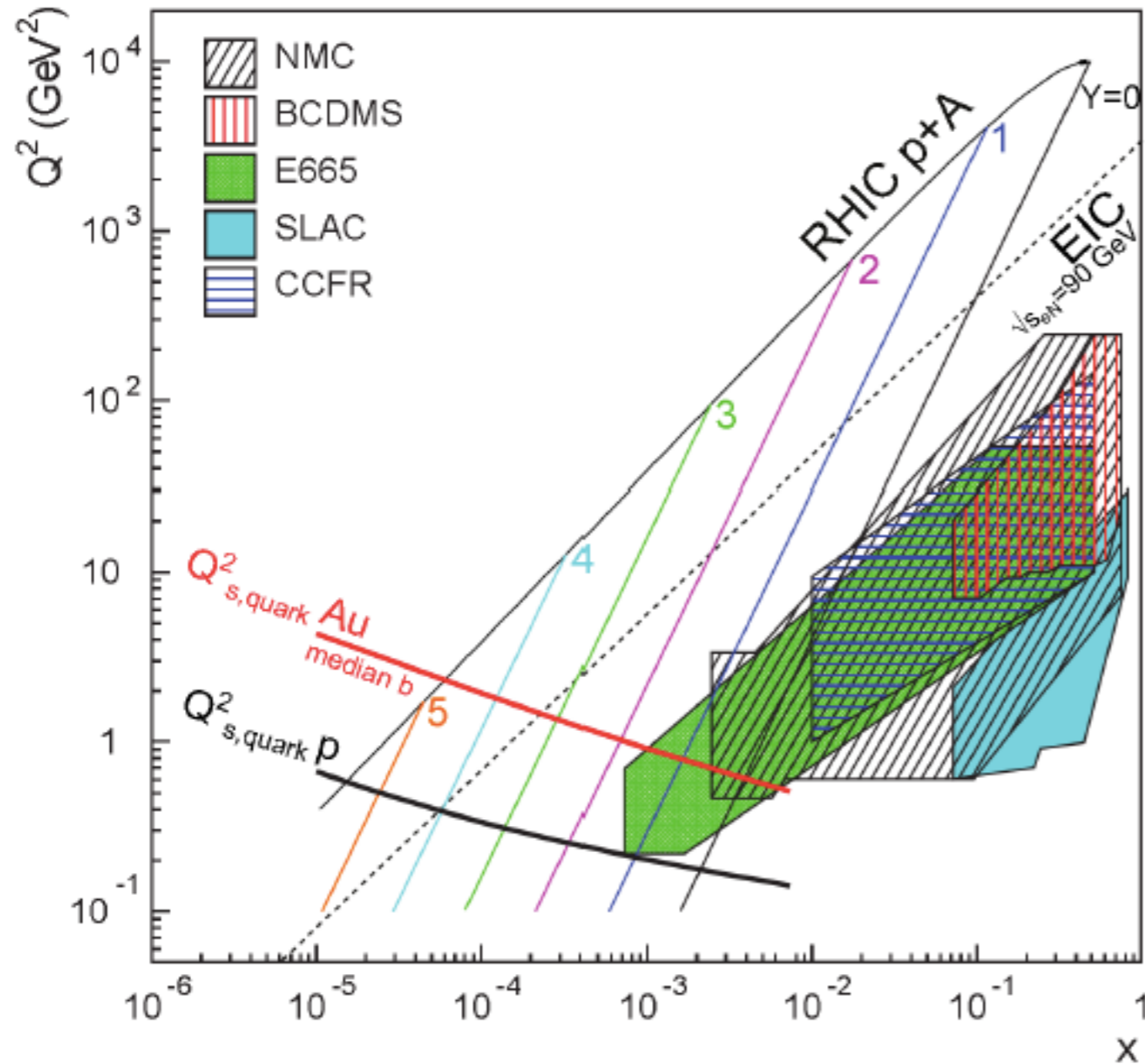
12th sPHENIX Fortnightly General Meeting
Brookhaven National Laboratory, September 2, 2016

This group covers a broad range of physics topics.



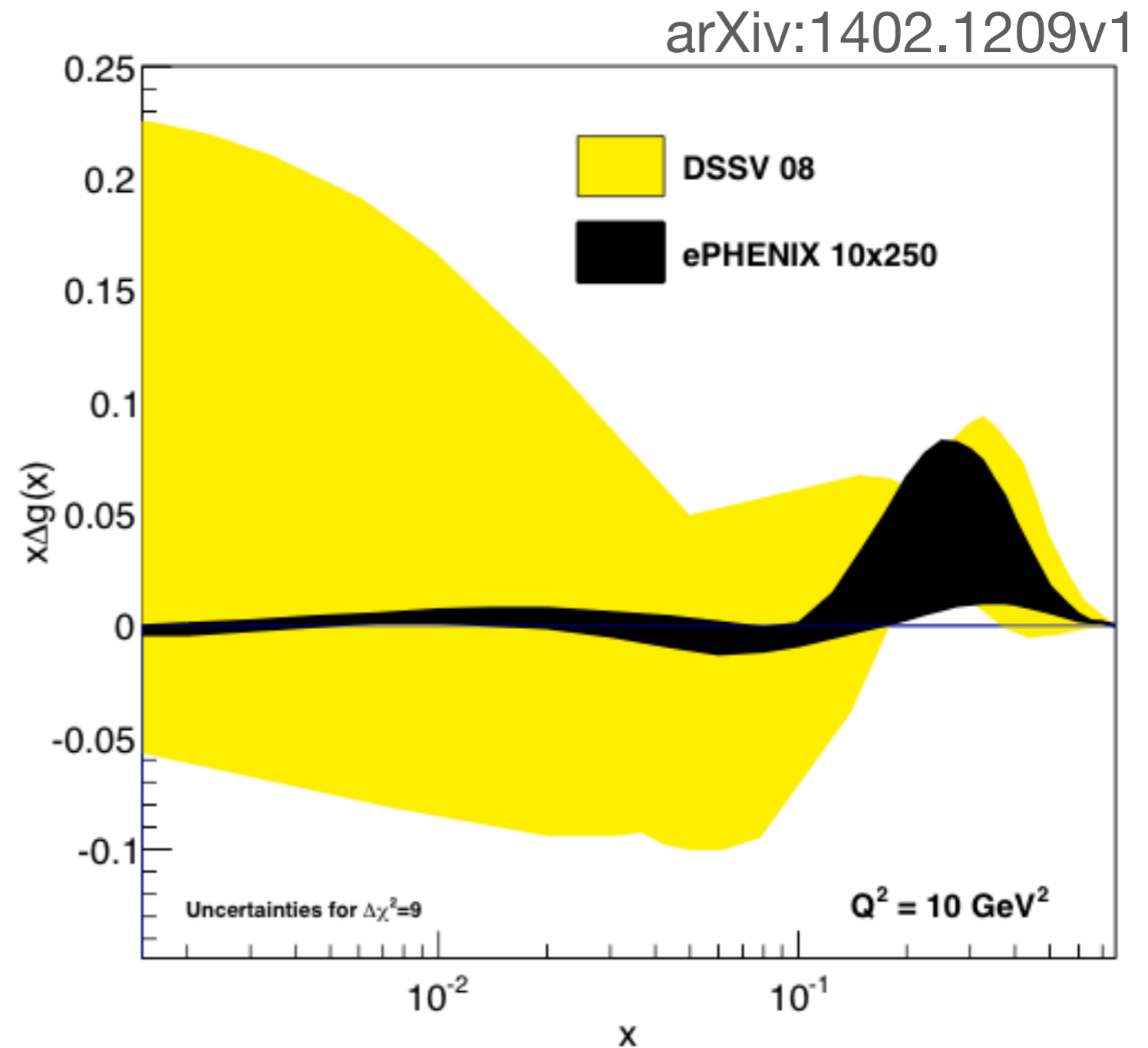
pp, pA data
will constrain
nuclear
fragmentation
functions.



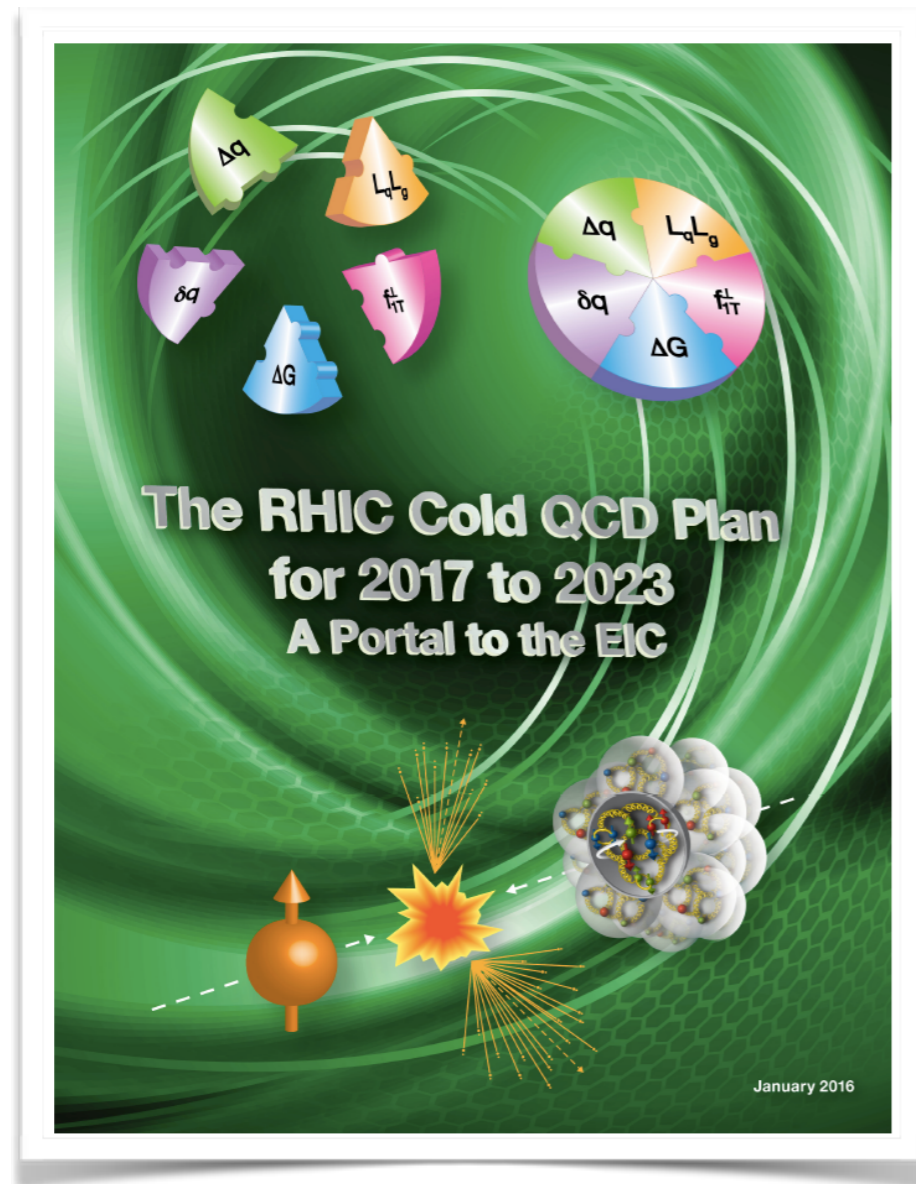


pA (and later eA) data can give a clear signature of saturation.

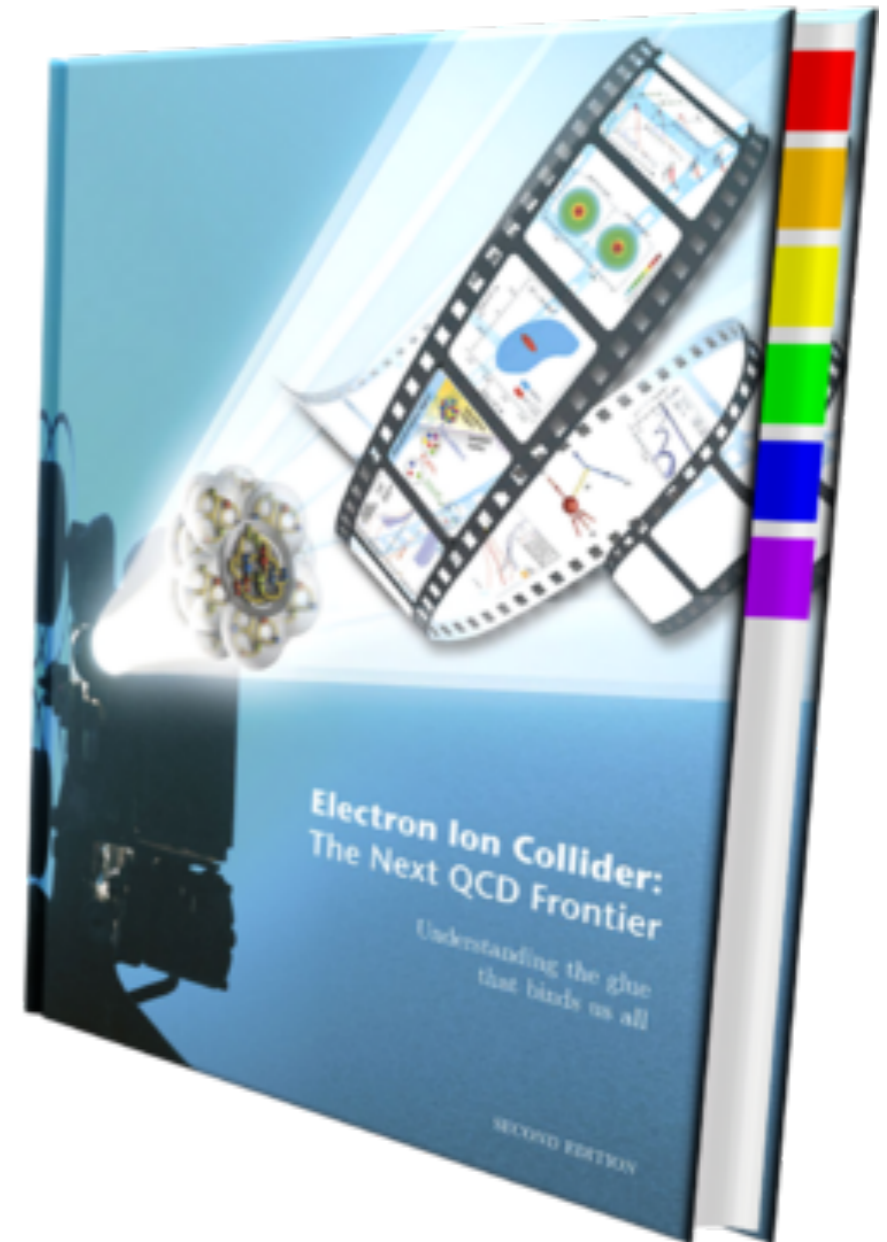
ep data will
provide the
spin and 3D
structure of
nucleons with
high precision.



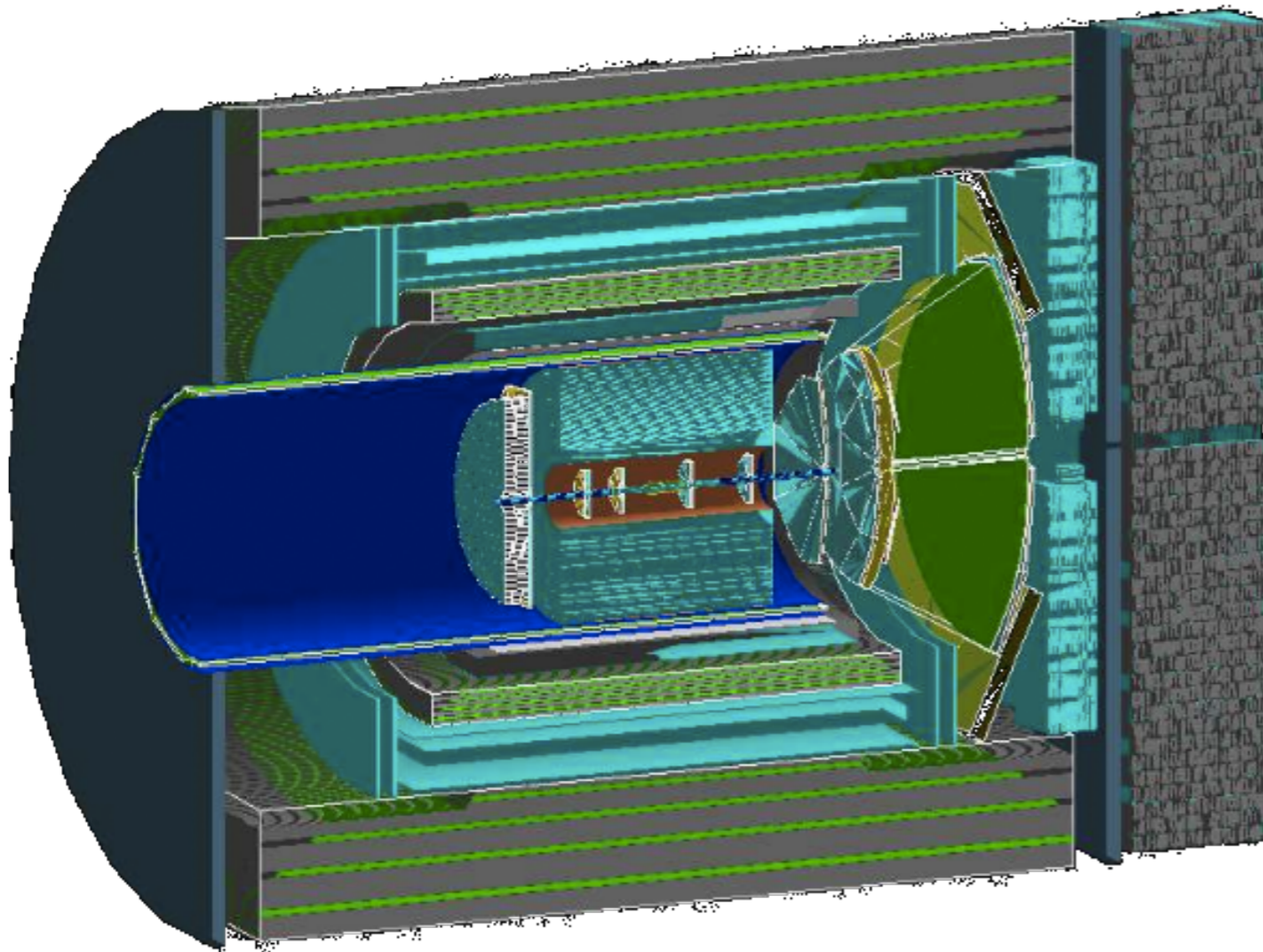
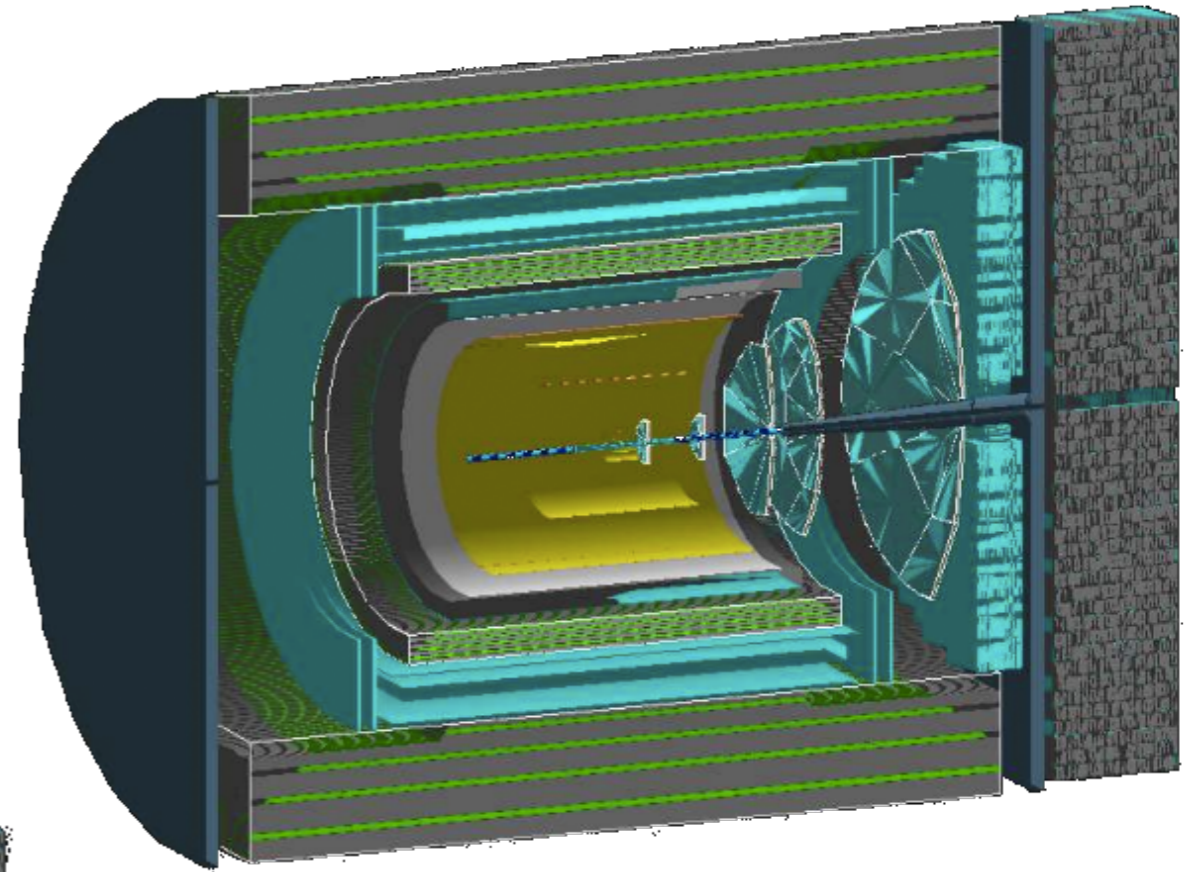
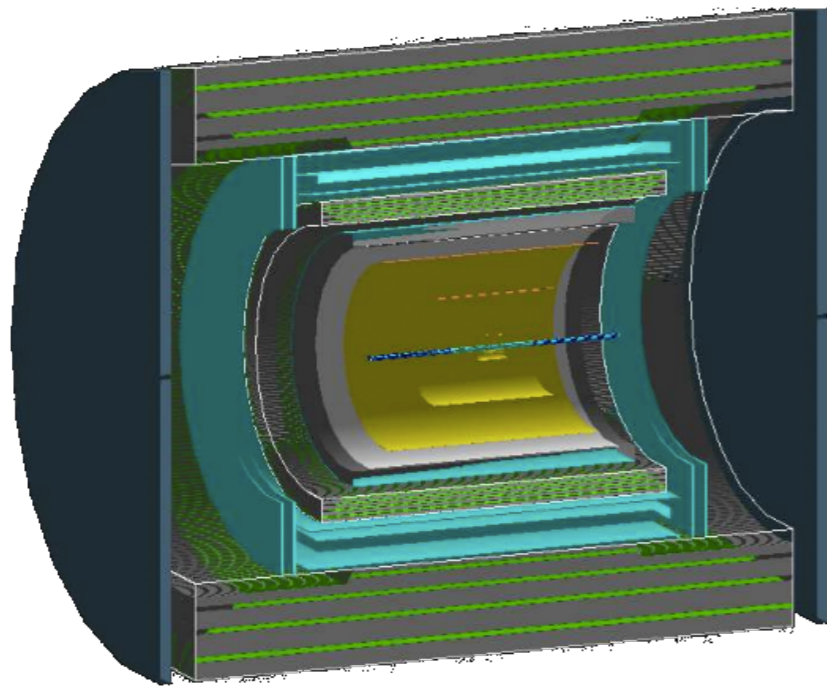
These and many more topics are covered in:



[arXiv:1602.03922]



[arXiv:1212.1701v3]

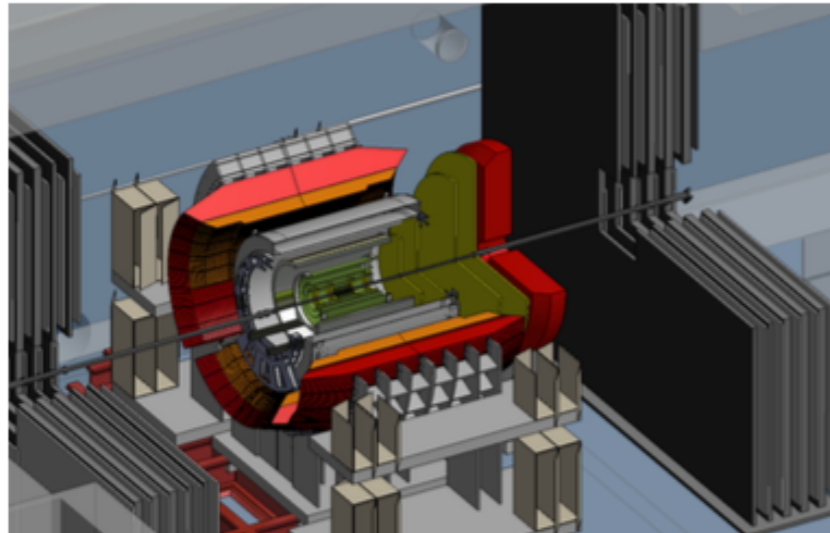


sPHENIX can
evolve to do
this science.

All three GEANT4 detector simulations are ready to run.

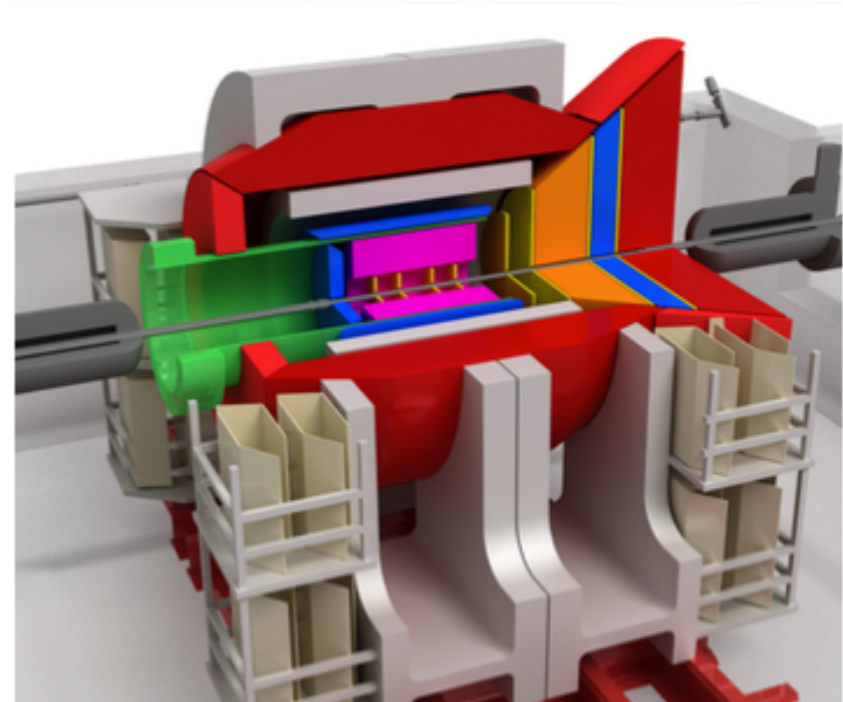
- Forward-sPHENIX and EIC detector are part of the sPHENIX core software.
- Integrated Pythia 6 (ep and pp) and Pythia 8 (pp) event generators.
- Follow this tutorial to get started:
https://wiki.bnl.gov/sPHENIX/index.php/Tutorial/fsPHENIX_simulation

Future Opportunities in $p+p$ and $p+A$
Collisions at RHIC with the Forward
sPHENIX Detector



The PHENIX Collaboration
April 29, 2014

Concept for an Electron Ion Collider (EIC)
detector built around the BaBar solenoid



arXiv:1402.1209v1 [nucl-ex] 5 Feb 2014

The PHENIX Collaboration
February 3, 2014

<http://tinyurl.com/fsphenix2014>

[arXiv:1402.1209v1]

Plan to update documents soon.

Let's increase our momentum!

Past Activities:

- Four forward-sPHENIX workshops
- Bi-weekly joint fsPHENIX / EIC Detector meetings



Sign up for our Cold QCD mailing list.

sphenix-cold-qcd-l@lists.bnl.gov







<https://lists.bnl.gov/mailman/listinfo/sphenix-cold-qcd-l>

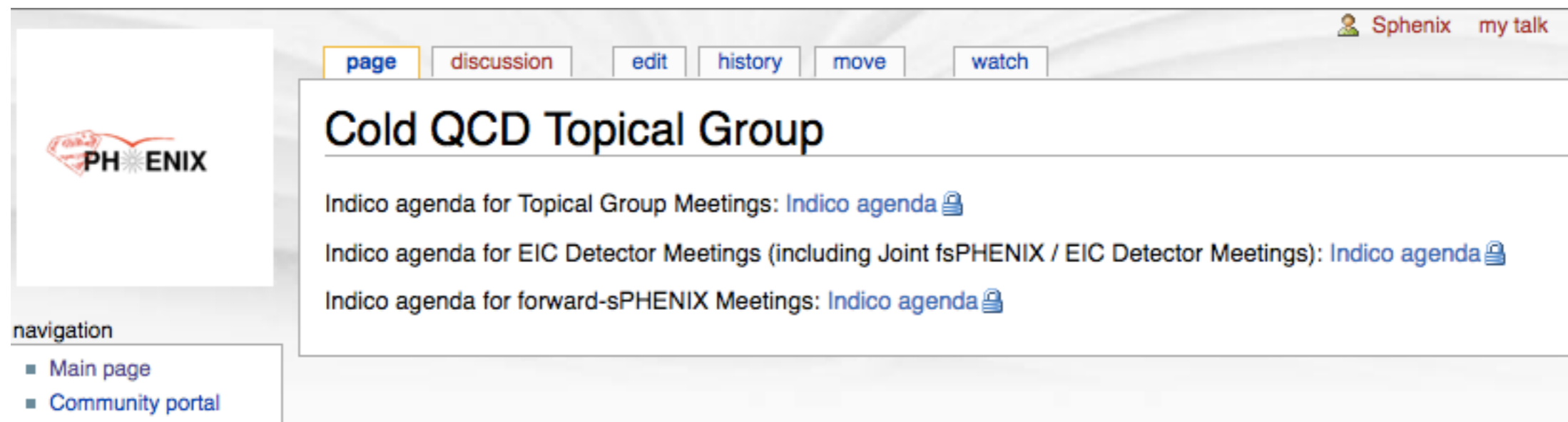
Vote for our new bi-weekly meeting time.

- Physical meeting at BNL
- BlueJeans connection
- Doodle poll closes tonight:

<http://doodle.com/poll/m3sa2wdaf56adssw>

September 2016 Mon 5				September 2016 Tue 6	September 2016 Thu 8
8:00 AM	8:30 AM	9:00 AM		10:30 AM	11:30 AM
 Nils Feege	✓	✓	✓	✓	✓
 Jin Huang	✓	✓	✓	✓	✓
 Mike Skoby	✓	✓	✓	✓	✓
 Chong Kim	✓	✓	✓	✓	✓
 Ming Liu				✓	✓
 Vitalii Okorokov	✓	✓	✓	✓	
 Pawel Nadel-Turons	✓	✓	✓	✓	✓
 Sasha B				✓	✓
 Yuji Goto	✓	✓	✓	✓	
 John Lajoie	✓	✓	✓	✓	
 Itaru Nakagawa					✓
 Takao Sakaguchi				✓	
 Haiwang	✓	✓	✓	✓	✓
 Rusty Towell					
 Ralf	✓	✓			
 Sookhyun	✓	✓	✓		
 Your name	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8:00 AM	8:30 AM	9:00 AM		10:30 AM	11:30 AM
Mon 5 September 2016				Tue 6 September 2016	Thu 8 September 2016

Visit our Cold QCD Group Wiki page.



https://wiki.bnl.gov/sPHENIX/index.php/Cold_QCD_Topical_Group

Pick your favorite and join!

